Effect of the Implementation of Occupational Health, Safety, and Regulation on Employee's Performance of Contractor Companies in Jakarta

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ABSTRACT

Performance of employees is the key for the success of the company. This study makes the calculation about how the implementation of occupational health, safety, and the regulation of the company will affect the employee's performance. This research use 74 respondents from many contractor company in Jakarta, and the analysis of the data use SPSS (Statistical Product and Service Solutions) software. The result from this research found that the 3 variables independent can explain 63.2% from dependent variable (employee's performance), where variables occupational health and regulation have positive correlation with employee's performance with contribution of each variables 6.6% and 61.9% while variable safety has negative correlation with the dependent variable with contribution of -5.3%.

Keywords: employee's performance, SPSS, healthy, safety, regulation, contractor.

INTRODUCTION

The number of work accidents in Indonesia is still relatively high, the Ministry of Manpower said the problem of work accidents is still a challenge in the field of employment. The number of accidents and deaths in the last five years (2014-2018). It can be seen that in 2014 there were 105.383 accidents with 2.375 deaths. In 2015, there were 110.285 accidents with 2.308 deaths. In 2016, there were 101.367 accidents with 2.382 deaths. In 2017, there were 123.000 accidents with 3.000 deaths (BPJS Ketenagakerjaan). Sector construction become one of the highest contributor of accident happened (about 31-35% from total accident). To reduce the number of accidents, it is necessary to implement occupational health and safety, beside that is also important for company for making a strong regulation which requires the employees to comply with work safety (Priansa, 2014). Because the number of work accidents is reduced, it is believed to improve the performance of workers. Based on literature analysis, this study's objectives are:

- How much implementation of occupational health can affect the performance of the employee;
- How much implementation of safety can affect the performance of the employee;
- How much implementation of regulation can affect the performance of the employee.

LITERATURE REVIEW

Occupational safety and health are all activities to guarantee and protect the safety and health of workers through efforts to prevent accidents and occupational diseases (Government Regulatino no 50,2012). According to the behavioral approach to management, performance is a person's ability to achieve the goals that have been set and the level of success is high in carrying out a task. (Gibson et. al, 2012). Some researcher has made this kind

of study, they analysis the implementation of occupational health and safety for employee's performance. Most of them got the positive result that show the implementation of occupational health and safety can increase the performance of the employee. But there is still some study that shows the implementation of those variables has negative correlation with performance. This study makes the analysis from implementation of occupational health, safety, and company regulation with employee's performance. With good regulation, the accident can be reduced (Prilia et al, 2012). However, variables occupational health, safety, regulation, and performance have some parameters which is described below:

- **Occupational health parameters:** (1) Clean work environment (2) Temperature at office (3) Exhaust system (4) Availability of clean water (5) Availability of health services (6) Availability of air vent (7) Availability of doctor at office (8) Medical check up
- **Safety parameters:** (1) Work tool placement (2) Personal protective equipment (3) Accident prevention tools (4) Outreach program (5) Control from leader (6) Punishment for violator (7) Reward for obedient
- **Regulation parameters:** (1) Clear level from a regulation (2) Justice of the regulation (3) Control from leader (4) Assertiveness from leader (5) Has a point about attendance (6)
- **Performance parameters:** (1)Quality (2) Quantity (3)Punctuality (4) Effectiveness from using materials (5) Attendance (6) Similarity between plan and reality (7) Knowledge about work (8) Attitude from employee (9) Mentality from employee

MATERIALS & METHODS

This study is a quantitative study, using questionnaires to 74 respondent whose working at contractor company in Jakarta. The questionnaires can be fulfil at Google form where the first 74 respondents will use their answer to analysis this study. This study basically finding the correlation between independent variables (X) to dependent variable (Y). In this study, the first independent variable is occupational health (X1), the second independent variable is safety (X2) and the third independent variable is regulation of the company (X3). However, this study uses dependent variables employee's performance (Y). Some item of the questionnaire will represent each parameter of each variable X and Y, as attached at literature review. Overall, variables X1 will has 18 questions, X2 will has 17 questions, X3 will has 14 questions, and Y will has 19 questions. Each question will represent about the parameter of each variables. The data analysis process with software SPSS (Statistical Product and Service Solutions) to produce the desires output. After all the respondents fulfill the questionnaires, data recap process is carried out. This study using Likert's scale where numbers 1-5 are used whose provisions are stated in the table 1 below.

Table 1 Measurement Scale

Scale	Appraisal	Description
1	0%	Strongly disagree
2	25%	Disagree
3	50%	Neutral
4	75%	Agree
5	100%	Strongly agree

Statistical Analysis

First step before going to analysis the data is check for the validity and reliability. This study use Pearson's correlation for testing the validity of the data, and Cronbach's alpha for testing the reliability of the data. The statistical analysis about validity and reliability test is attached below.

Table 2 Validity test

Variables	Pearson's correlation (sig)
Occupational health (X1)	0.00
Safety (X2)	0.00
Regulation of company (X3)	0.00
Employee's performance (Y)	0.00

From Table 2, the significant score of occupational health, safety, regulation, and employee's performance is 0.00 where

0.00 < 0.05. That's mean the questionnaire are valid.

Table 3 Reliability test

Variables	Cronbrach's alpha
Occupational health (X1)	0.895
Safety (X2)	0.940
Regulation of company (X3)	0.936
Employee's performance (Y)	0.912

From Table 3, the Cronbach's alpha score is 0.895 for X1, 0.940 for X2, 0.936 for X3, and 0.912 for Y. That's means all the independent variables and dependent variable have score > 0.6 which means all the questionnaire are reliable. Next analysis is normality test, multicollinearity test, heteroscedasticity test, and linearity test. The result of those tests attached below.

Table 4 Multicollinearity test

Variables	Tolerance	VIF
Occupational health (X1)	.235	4.260
Safety (X2)	.523	1.912
Regulation of company (X3)	.238	4.202

From Table 4, the tolerance of X1,X2, and X3 are > 0.1 and the VIF < 10 which means the data is not multicollinearity.

Table 5 heteroscedasticity test

Variables	Sig
Occupational health (X1)	0.822
Safety (X2)	0.456
Regulation of company (X3)	0.261

From Table 5, the sig of X1, X2, and X3 are > 0.05 which means the data is not heteroscedasticity.

Table.6 Normality and linearity test

Test	Sig
Normality test	0.08
Linearity test	1.00

From Table 6 the sig for normality test is 0.08 which is 0.08 > 0.05 that's mean the data distribution is normal. And hence the sig for linearity test is 1.00 which is 1.00 > 0.05 that's mean the model of this study is linear.

RESULT

From the result of data analysis obtained the value of R^2 is 0.632 which means the independent variables (occupational health, safety, and regulation) can explain 63.2% from dependent variable

(employee's performance). Where the 36.8% come from other variables that is not included in this study. The final result of this research is to make a formula about the relationship between independent variables and dependent variable so that the multiple linear regression analysis model is chosen.

Table 7 Multiple linear regression analysis

Variables	Unstandarized Coefficient Beta
Constant	12.685
Occupational Health (X1)	0.142
Safety (X2)	-0.085
Regulation (X3)	1.085

From table 7, the formula for multiple linear regression analysis can be made, written below

$$Y = 12,685 + 0,142X1 - 0,085X2 + 1,085X3 ..(1)$$

Y = employee's performance
X1 = occupational health
X2 = safety
X3 = regulation

Table 8 Proportion of each variables

Variables	R Square	Proportion (%)
Occupational Health (X1)	0.632	6.6
Safety	0.632	-5.3
Regulation	0.632	61.9

From Table 8 obtained the value of the proportion of the contribution of each variable to employee's performance where X1 has 6.6% contribution (positive correlation), X2 has 5.3% contribution (negative correlation) and X3 has 61.9% contribution (positive correlation).

DISCUSSION

From formula (1) it can be seen that variable occupational health (X1) has positive correlation with employee's performance (Y). Also regulation (X3) has positive correlation with employee's performance. The interesting thing is variable safety (X2) has negative correlation with employee's performance. That's mean, the implementation of safety will make the performance of the employee's decreased. The same thing was also found by Yankson Esi et al in their research entitled "The Effect Of Health And Safety Standart On Productivity In Ghana Rubber Estates Limited" and by Dr. Gabriel Dwomoh et al in their research entitled "Impact of

occupational health and safety policies on employees' performance in the Ghana's timber industry". From those research, they concluded that the cause why variable safety has negative correlation with employee's performance caused by poor management of the company. The management doesn't do their work well with high discipline.

CONCLUSION

Conclusion of this research stated below:

- Variable occupational health has positive correlation to employee's performance
- Variable safety has negative correlation to employee's performance
- Variable regulation has positive correlation to employee's performance
- The independent variable can explain 63.2% of the dependent variable
- The linear regression model of this study is

$$Y = 12,685 + 0,142X1 - 0,085X2 + 1,085X3$$

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